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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,983	12/30/2003	James D. Hammond	386998042US	8242

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EXAMINER

MOREHEAD, JOHN H

ART UNIT	PAPER NUMBER
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2622

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/748,983	HAMMOND, JAMES D.	
	Examiner	Art Unit	
	John Morehead	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 12 and 24 are objected to because of the following informalities: "wherein said light-sensing device is selected form the group consisting of film, CCD, and CMOS." Examiner suggests the word "**form**" should be changed to "**from**." Appropriate correction is required.

Drawings

(Fig. 2B)
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "20" and "22" have both been used to designate the light source and concave mirror respectively. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 4 and 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

4. Re claim 4, the light source in claim 3, wherein a wavelength range of said blue region is 390 nm to 500 nm (**It is well known in the art that the wavelength of the blue region is 440 nm to 485 nm. 390 nm to 500 nm encompasses the color region of violet, it also encompasses the color region of cyan**). The same applies to claim 18, the blue light source in claim 14, wherein a wavelength range of said blue region is 390 nm to 500 nm).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-3, 5-17 and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voss et al. US 2005/0046739 in view of Kishimoto et al. US 5895128.

8. Re claim 1, Voss discloses a light source (fig. 1 element 101) used for an image capturing apparatus (fig. 1 element 100) and a light-sensing device (fig. 1 element 105) of said image capturing apparatus respectively senses a plurality of color regions (i.e. CMOS image sensor, para 0029), said light source comprising: a lighting source (fig. 1 elements 11₁-11_n).

Voss fails to teach a means for guiding a light from said lighting source to an object to capture an image, however Kishimoto teaches an electronic flash (fig. 1 element 1) that comprises of a condenser lens (fig. 3 element 504) to enhance illumination efficiency (col. 3 lines 37-45).

Therefore taking the combined teachings of Voss and Kishimoto, as a whole, it would have been obvious to one of ordinary skill in the art to combine the image capturing device of Voss with the electronic flash of Kishimoto to further achieve color

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balancing by the ability to adjust the color temperature of the illumination light (Kishimoto, col. 1 lines 51-59).

It is noted by the Examiner that the combined teachings of Voss and Kishimoto do teach the limitation that after said light pass said light guiding means, an intensity of one color region of said light is higher than that of other color regions. Both Voss and Kishimoto use flashes as light emitting means and both contain a plurality of colors, including blue, that can be used to enhance a color of a particular color region (Voss, fig. 5 para 0048 and Kishimoto, fig. 15 col. 12 lines 26-42).

Re claim 2, the combined teachings of Voss and Kishimoto, as a whole, further teaches the light source in claim 1, wherein a sensing capability of said light-sensing device in said color region is weaker than that in said other color regions (based on CCD and CMOS image sensors, blue has a lower sensitivity than red and green. Furthermore based on applicant's background, para 0004, applicant states "In general, the sensitivity of the present CCD and CMOS in blue is weaker than that of red and green.")

Re claim 3, the combined teachings of Voss and Kishimoto, as a whole, further teach the light source in claim 2, wherein said color region is a blue region (claim limitations has already been discussed and rejected, see claim 2).

Re claim 5, the combined teachings of Voss and Kishimoto, as a whole, further teach the light source in claim 1, wherein said lighting source is composed of a luminary (i.e. LED, Voss, fig. 1 elements 11₁-11_n) and a blue filter (Kishimoto, col. 3 lines 32-35).

Re claim 6, the light source in claim 5, wherein said blue filter is a polarizing filter. (Based on applicant's specification, there is no explicit definition of "polarizing." Therefore examiner will consider polarizing as: to cause (as light waves) to vibrate in a definite pattern).

The combined teachings of Voss and Kishimoto, as a whole, fails to teach a blue filter that is a polarizing filter. However Official Notice is taken that the above limitation is well known to one of ordinary skill in the art.

Therefore it would have been obvious to one of ordinary skill in the art to make the blue filter taught in Voss and Kishimoto a polarizing filter so that the light waves can vibrate in a definite pattern in accordance with the image.

Re claim 7, the combined teachings of Voss and Kishimoto, as a whole, further teach the light source in claim 1, wherein said lighting source is LEDs (claim limitation has already been discussed and rejected, see claim 5).

Re claim 8, the combined teachings of Voss and Kishimoto, as a whole, further teach the light source in claim 1, wherein said light-guiding means (Kishimoto fig. 3 element 504), comprises a concave mirror (Kishimoto col. 3 lines 39-43).

Re claim 9, the combined teachings of Voss and Kishimoto, as a whole, further teach the light source in claim 8, wherein said concave mirror is a concave mirror with a color of said color region (Kishimoto col. 3 lines 40-45).

Re claim 10, the combined teachings of Voss and Kishimoto, as a whole, further teach the light source in claim 8, wherein said light-guiding means further comprises a lens series (Kishimoto, col. 3 lines 36-45).

Re claim 11, the combined teachings of Voss and Kishimoto, as a whole, further teach the light source in claim 10, wherein said lens series is a lens series with a color of said color region (claim limitation has already been discussed and rejected, see claim 10).

Re claim 12, the combined teachings of Voss and Kishimoto, as a whole, further teach the light source in claim 1, wherein said light-sensing device is selected from the group consisting of film, CCD, and CMOS (Voss, para 0029).

Re claim 13, the combined teachings of Voss and Kishimoto, as a whole, further teach the light source in claim 1, wherein said image capturing apparatus is a CMOS digital camera (claim limitation has already been discussed and rejected, see claim 12).

Re claim 14, the combined teachings of Voss and Kishimoto, as a whole, further teach a blue light source used for a light-sensing device, comprising: a lighting source having three color regions of red, green and blue (Voss, fig. 5 elements 51₁-51_n para 0048 and 0049); and means for guiding a light from said lighting source to an object to capture an image wherein after said light pass said light guiding means, an intensity of said blue region is higher than that of said red and green regions (claim limitation has already been discussed and rejected, see claim 1).

Re claim 15, the combined teachings of Voss and Kishimoto, as a whole, further teach the blue light source in claim 14, wherein said lighting source is composed of a luminary and a blue filter (claim limitation has already been discussed and rejected, see claim 5).

Re claim 16, the combined teachings of Voss and Kishimoto, as a whole, further teach the blue light source in claim 15, wherein said blue filter is a polarizing filter (claim limitation has already been discussed and rejected, see claim 6).

Re claim 17, the combined teachings of Voss and Kishimoto, as a whole, further teach the blue light source in claim 14, wherein said lighting source is LEDs (claim limitation has already been discussed and rejected, see claim 7).

Re claim 19, the combined teachings of Voss and Kishimoto, as a whole, further teach the blue light source in claim 14, wherein said lighting source is mounted on a camera (Voss, fig. 1).

Re claim 20, the combined teachings of Voss and Kishimoto, as a whole, further teach the blue light source in claim 14, wherein said light-guiding means comprises a concave mirror (claim limitation has already been discussed and rejected, see claim 9).

Re claim 21, the combined teachings of Voss and Kishimoto, as a whole, further teach the blue light source in claim 20, wherein said concave mirror is a blue concave mirror (Kishimoto, col. 3 lines 36-45)

Re claim 22, the combined teachings of Voss and Kishimoto, as a whole, further teach the blue light source in claim 20, wherein said light-guiding means further comprises a lens series (Kishimoto, col. 3 lines 36-45).

Re claim 23, the combined teachings of Voss and Kishimoto, as a whole, further teach the blue light source in claim 22, wherein said lens series is a blue lens series (Kishimoto, col. 3 lines 36-45).

Re claim 24, the combined teachings of Voss and Kishimoto, as a whole, further teach the blue light source in claim 14, wherein said light-sensing device is selected

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form the group consisting of film, CCD, and CMOS (claim limitation has already been discussed and rejected, see claim 12).

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Morehead whose telephone number is 571-270-1183. The examiner can normally be reached on Monday - Friday (alt) 7:30-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc Yen Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JM



NGOC-YEN VU
SUPERVISORY PATENT EXAMINER